

# OPTIMALISASI PERSEDIAAN BAHAN BAKU KEMASAN BOTOL UKURAN 600 ML DAN BAHAN BAKU KEMASAN GELAS UKURAN 240 ML UNTUK AMDK DI PT SWABINA GATRA-GRESIK

Nama Mahasiswa : Mohammad Khasan Nadhif  
NIM : 1011510095  
Pembimbing : Dr. Ir. Gatot Kustiyadji, S.E., M.Si.

## ABSTRAK

Penelitian ini bertujuan untuk mengoptimalkan persediaan bahan baku kemasan botol ukuran 600 ml (botol kosong) dan bahan baku kemasan gelas ukuran 240 ml (gelas kosong) untuk 12 periode ke depan berupa usulan mengenai perencanaan dan pengendalian persediaan. Pendekatan penelitian menggunakan metode kuantitatif deskriptif. Pengumpulan data menggunakan teknik wawancara dan dokumentasi. Data tersebut dianalisis melalui pengumpulan data, validasi, pengolahan data, interpretasi data, dan penarikan kesimpulan. Penelitian ini dilakukan pengolahan data perencanaan menggunakan peramalan kuantitatif dan pengendalian persediaan menggunakan metode perusahaan, metode EOQ (*Economic Order Quantity*) dan POQ (*Period Order Quantity*). Informan dalam penelitian ini adalah pihak pengadaan barang, penjualan dan persediaan gudang bahan.

Hasil penelitian menunjukkan bahwa jumlah perencanaan kebutuhan persediaan untuk 12 periode ke depan bahan baku kemasan botol ukuran 600 ml (botol kosong) sebesar 4.005.038 unit dan bahan baku kemasan gelas ukuran 240 ml (gelas kosong) sebesar 8.987.618 unit. Jumlah angka perencanaan tersebut diperoleh dari hasil perhitungan metode peramalan terbaik, yaitu metode *winter's*. Kemudian jumlah perencanaan kebutuhan persediaan masing-masing bahan baku kemasan yang telah diperoleh dilakukan tahapan pengendalian persediaan dengan metode perusahaan, EOQ, dan POQ. Hasil dari perbandingan ketiga metode tersebut menunjukkan bahwa metode EOQ mampu menghasilkan total biaya persediaan yang minimum dibandingkan metode perusahaan dan metode POQ. Dengan kata lain, metode EOQ (*Economic Order Quantity*) mampu melakukan efisiensi yang besar dalam mengoptimalkan persediaan bahan baku kemasan botol ukuran 600 ml (botol kosong) dan bahan baku kemasan gelas ukuran 240 ml (gelas kosong) untuk 12 periode ke depan.

**Kata kunci:** EOQ, Peramalan, Perencanaan dan Pengendalian Persediaan, POQ





# **OPTIMIZATION OF RAW MATERIAL INVENTORY PACKAGING BOTTLE SIZE 600 ML AND THE RAW MATERIAL OF GLASS PACKAGING SIZE 240 ML FOR BOTTLED WATER IN PT SWABINA GATRA-GRESIK**

Student Name : Mohammad Khasan Nadhif  
Student Identify Number : 1011510095  
Supervisor : Dr. Ir. Gatot Kustiyadji, S.E., M.Si.

## **ABSTRACT**

*This study aims to optimize the raw material inventory packaging bottles size 600 ml (empty bottles) and packaging materials cup size 240 ml (empty glass) for 12 periods into the future in the form of proposals regarding planning and inventory control. Research approach using the method of quantitative descriptive. The collection of data using interviews and documentation. Data were analyzed through data collection, validation, processing data, interpretation of the data and drawing conclusions. This research is done processing the data planning using quantitative forecasting and inventory control using the company's methods, the method EOQ (Economic Order Quantity) and POQ (Period Order Quantity). Informants in this research is the procurement of goods, sales and inventory of warehouse materials.*

*The results showed that the number of planning inventory needs for 12 periods into the future on the raw materials packaging bottles size 600 ml (bottle is empty) equal to 4.005.038 unit and on the packaging materials glass size 240 ml (empty glass) of 8.987.618 unit. Number of planning were obtained from the results of the calculation method of forecasting that the winter's method. Then the number of the planning requirements for the inventory of each raw material packaging which has been obtained by stages of inventory control by method of the company, EOQ, and POQ. The results of the comparison of the three methods shows that the EOQ method is able to produce the total inventory costs are minimum compared to the company's methods and the methods of POQ. In other words, the method EOQ (Economic Order Quantity) is able to perform a great efficiency in optimizing inventory of raw materials packaging bottles size 600 ml (empty bottles) and packaging materials cup size 240 ml (empty glass) for 12 periods into the future.*

**Keywords:** *EOQ, Forecasting, Inventory Planning and Control, POQ*



**“Halaman ini sengaja dikosongkan”**